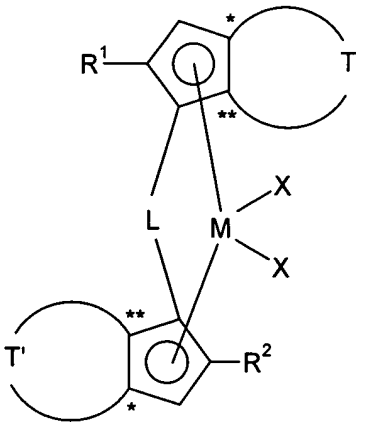
AMENDMENTS TO THE CLAIMS

1. (Original) A process for preparing a catalyst solid for olefin polymerization, comprising a finely divided support, an aluminoxane and a metallocene compound, which comprises

a) firstly combining the finely divided support with the aluminoxane and subsequently

b) adding the reaction product of a metallocene compound of the formula (I),



(I)

where

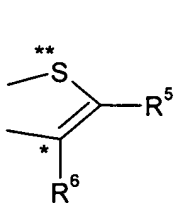
M is zirconium, hafnium or titanium,

X are identical or different and are each, independently of one another, hydrogen or halogen or a group –R, –OR, $-OSO_2CF_3$, –OCOR, –SR, $-NR_2$ or $-PR_2$, where R is linear or branched C_1-C_{20}-alkyl, C_3-C_{20}-cycloalkyl which may bear one or more C_1-C_{10}-alkyl radicals as substituents, C_6-C_{20}-aryl, C_7-C_{20}-alkylaryl or C_7-C_{20}-arylalkyl and may contain one or more heteroatoms from groups 13 – 17 of the Periodic Table of the Elements or one or more unsaturated bonds, with the two radicals X also being able to be joined to one another,

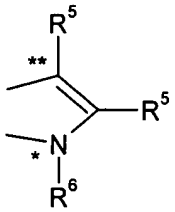
L is a divalent bridging group selected from the group consisting of C_1-C_{20}-alkylidene, C_3-C_{20}-cycloalkylidene, C_6-C_{20}-arylidene, C_7-C_{20}-alkylarylidene and C_7-C_{20}-arylalkylidene radicals which may contain heteroatoms from groups 13 - 17 of the Periodic Table of the Elements or is a silylidene group having up to 5 silicon atoms,

R^1 and R^2 are identical or different and are each, independently of one another, hydrogen or linear or branched C_1-C_{20}-alkyl or C_3-C_{20}-cycloalkyl which may bear one or more C_1-C_{10}-alkyl radicals as substituents, C_6-C_{20}-aryl, C_7-C_{40}-alkylaryl or C_7-C_{40}-arylalkyl and may contain one or more heteroatoms from groups 13 - 17 of the Periodic Table of the Elements or one or more unsaturated bonds,

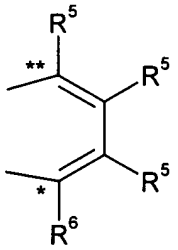
T and T' are divalent groups of the formulae (II), (III), (IV), (V), (VI) or (VII),



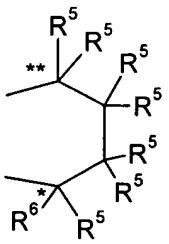
(II)



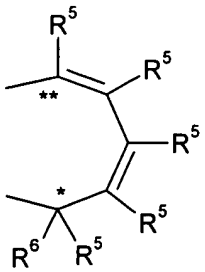
(III)



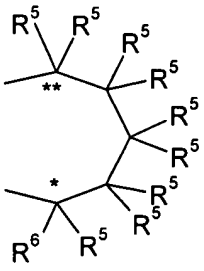
(IV)



(V)



(VI)



(VII)

where

the atoms denoted by the symbols * and ** are in each case joined to the atoms of the compound of the formula (I) which are denoted by the same symbol, and

R^5 and R^6 are identical or different and are each, independently of one another, hydrogen or halogen or linear or branched C_1-C_{20}-alkyl or C_3-C_{20}-cycloalkyl which may bear one or more C_1-C_{10}-alkyl radicals as substituents, C_6-C_{40}-aryl, C_7-C_{40}-alkylaryl or C_7-C_{40}-arylalkyl and may contain one or more heteroatoms from groups 13 – 17 of the Periodic Table of the Elements or one or more unsaturated bonds or two radicals R^5 or R^5 and R^6 are joined to one another to form a saturated or unsaturated C_3-C_{20} ring,

with at least one organometallic compound of the formula (VIII)

$$M^1(R^7)_r(R^8)_s(R^9)_t \qquad \text{(VIII)}$$

where

M^1 is an alkali metal, an alkaline earth metal or a metal of group 13 of the Periodic Table,

R^7 is hydrogen, C_1-C_{10}-alkyl, C_3-C_{10}-cycloalkyl, C_6-C_{15}-aryl, alkylaryl or arylalkyl each having from 1 to 10 carbon atoms in the alkyl part and from 6 to 20 carbon atoms in the aryl part,

R^8 and R^9 are each hydrogen, halogen, C_1-C_{10}-alkyl, C_3-C_{10}-cycloalkyl, C_6-C_{15}-aryl, alkylaryl, arylalkyl or alkoxy each having from 1 to 10 carbon atoms in the alkyl part and from 6 to 20 carbon atoms in the aryl part,

r is an integer from 1 to 3

and

s and t are integers from 0 to 2, where the sum r+s+t corresponds to the valence of M^3,

to the modified support.

2. (Original) A process for preparing a catalyst solid for olefin polymerization as claimed in claim 1, wherein the support used bears functional groups and the support and the amount of aluminoxane are selected so that essentially the total amount of the aluminoxane used has reacted with the functional groups of the support.

3. (Currently amended) A process for preparing a catalyst solid for olefin polymerization as claimed in claim 1 ~~claim 1 or 2~~, wherein the organometallic compounds of the formula (VIII) which are used have at least one branched alkyl radical having from 1 to 10 carbon atoms or cycloalkyl radical having from 3 to 10 carbon atoms.

4. (Original) A process for preparing a catalyst solid for olefin polymerization as claimed in claim 3, wherein the organometallic compound of the formula (VIII) which is used is triisobutylaluminum, diisobutylaluminum hydride or a mixture of the two compounds.

5. (Currently amended) A process for preparing a catalyst solid for olefin polymerization as claimed in claim 1 ~~any of claims 1 to 4~~, wherein each of the steps a) and b) is carried out in suspension and the suspension medium is removed by evaporation after step b).

6. (Currently amended) A catalyst solid obtainable by a process as claimed in claim 1 ~~any of claims 1 to 5~~.

7. (Original) A catalyst system for the polymerization of olefins, comprising said catalyst ~~a catalyst~~ solid as claimed in claim 6.

8. cancelled.

9. cancelled.

10. (currently amended) A process for the polymerization of olefins which comprises using the ~~using a~~ catalyst system as claimed in claim 7.

11. (new) A process for preparing a catalyst solid for olefin polymerization as claimed in claim 2, wherein the organometallic compounds of the formula (VIII) which are used have at least one branched alkyl radical having from 1 to 10 carbon atoms or cycloalkyl radical having from 3 to 10 carbon atoms.

12. (new) A process for preparing a catalyst solid for olefin polymerization as claimed in claim 12, wherein the organometallic compound of the formula (VIII) which is used is triisobutylaluminum, diisobutylaluminum hydride or a mixture of the two compounds.

13. (new) A process for preparing a catalyst solid for olefin polymerization as claimed in claim 12, wherein each of the steps a) and b) is carried out in suspension and the suspension medium is removed by evaporation after step b).

14. (new) A catalyst solid obtained by a process as claimed in claim 13.

15. (new) A process for the polymerization of olefins which comprises using the catalyst system as claimed in claim 14.